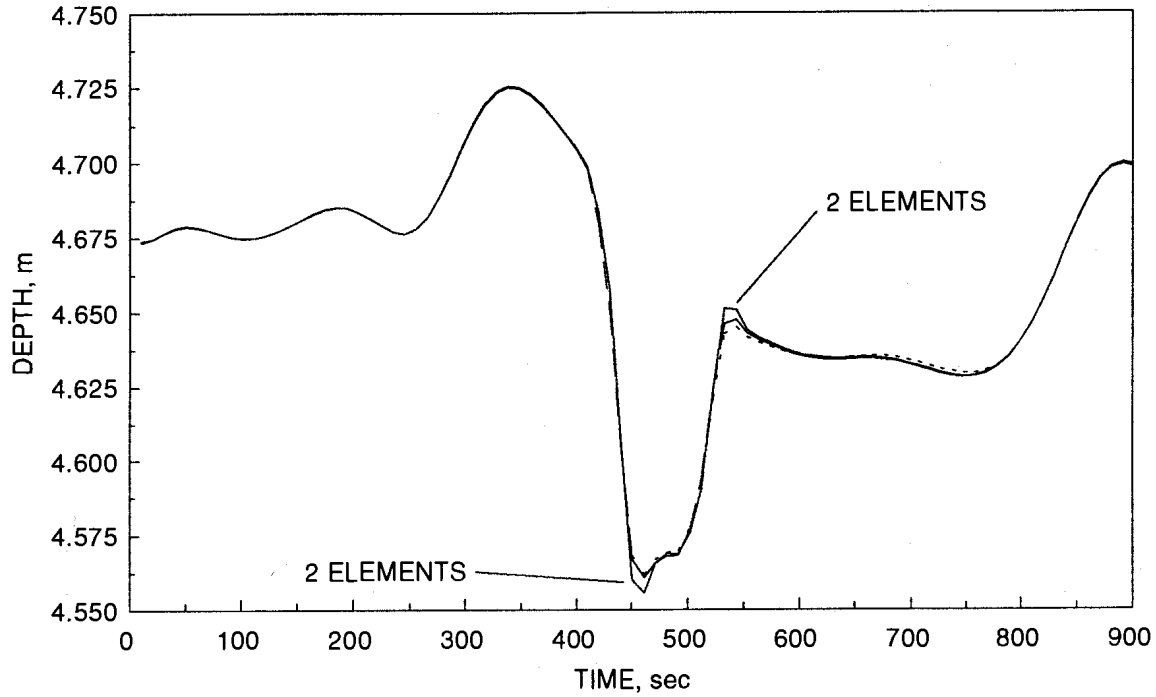
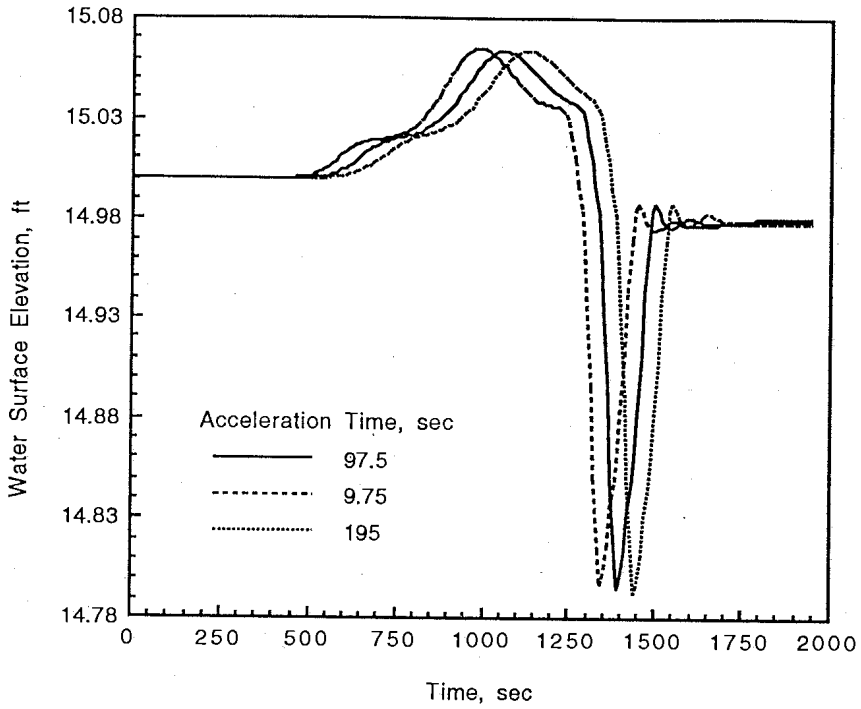
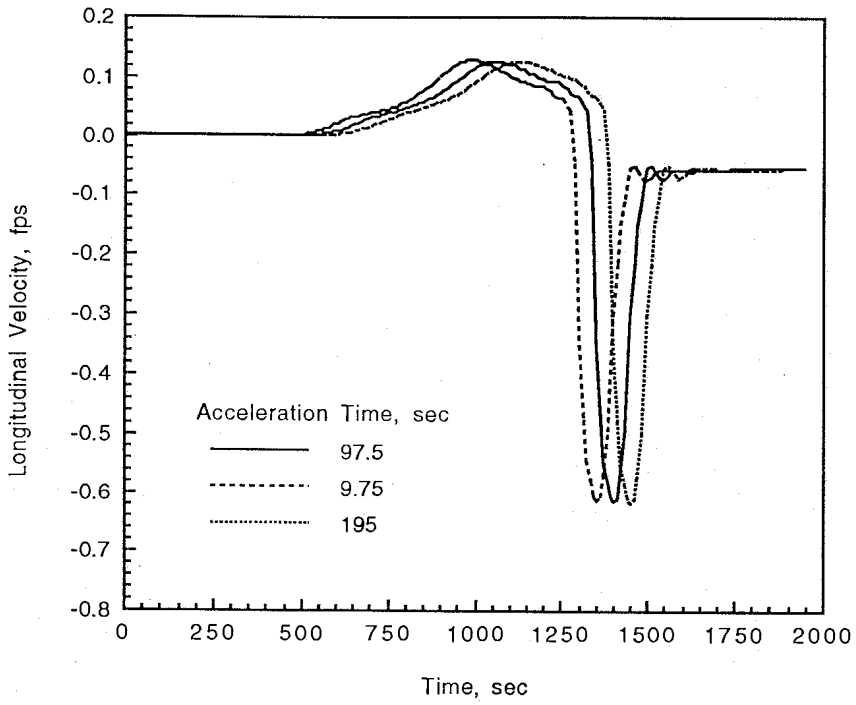


NUMBER OF ELEMENTS ACROSS VESSEL

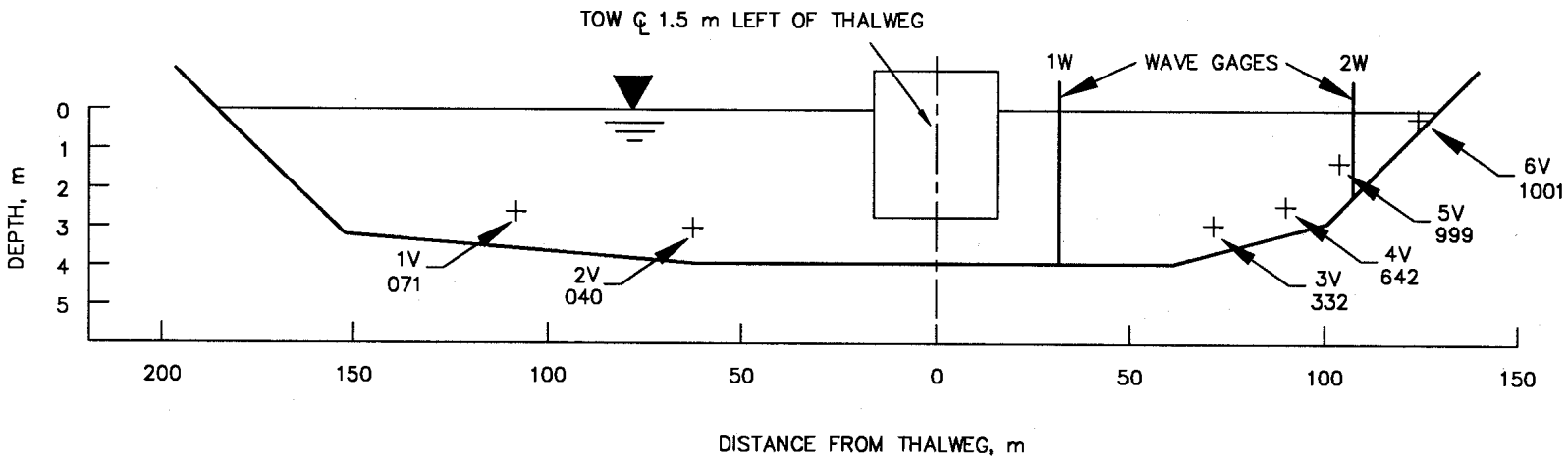
—— 2 ELEMENTS — – 3 ELEMENTS · · · 4 ELEMENTS

MESH REFINEMENT RESULTS
HYDRODYNAMIC RESPONSE AT
2.25 VESSEL WIDTHS
RIGHT OF SAILING LINE



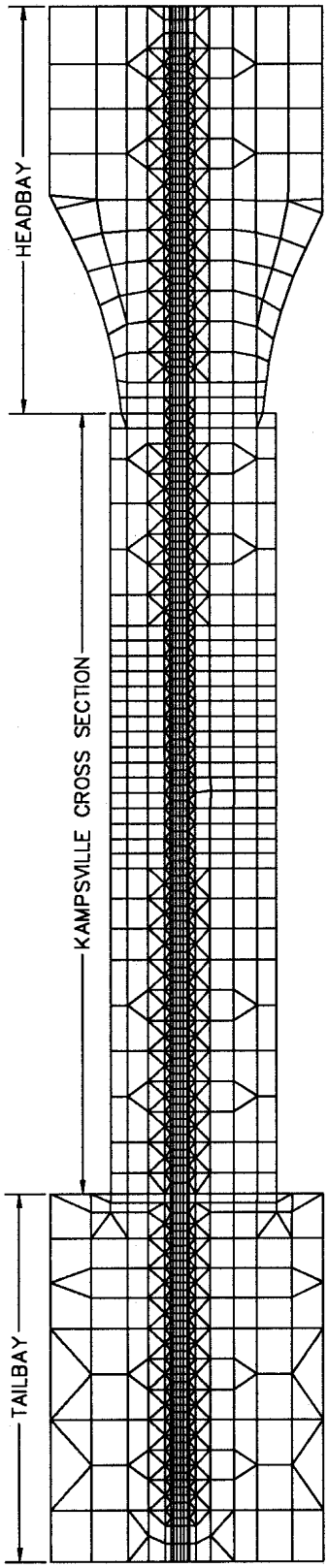


HYDRODYNAMIC RESPONSE AT
TOP OF SLOPE FOR
VARIOUS ACCELERATION RATES

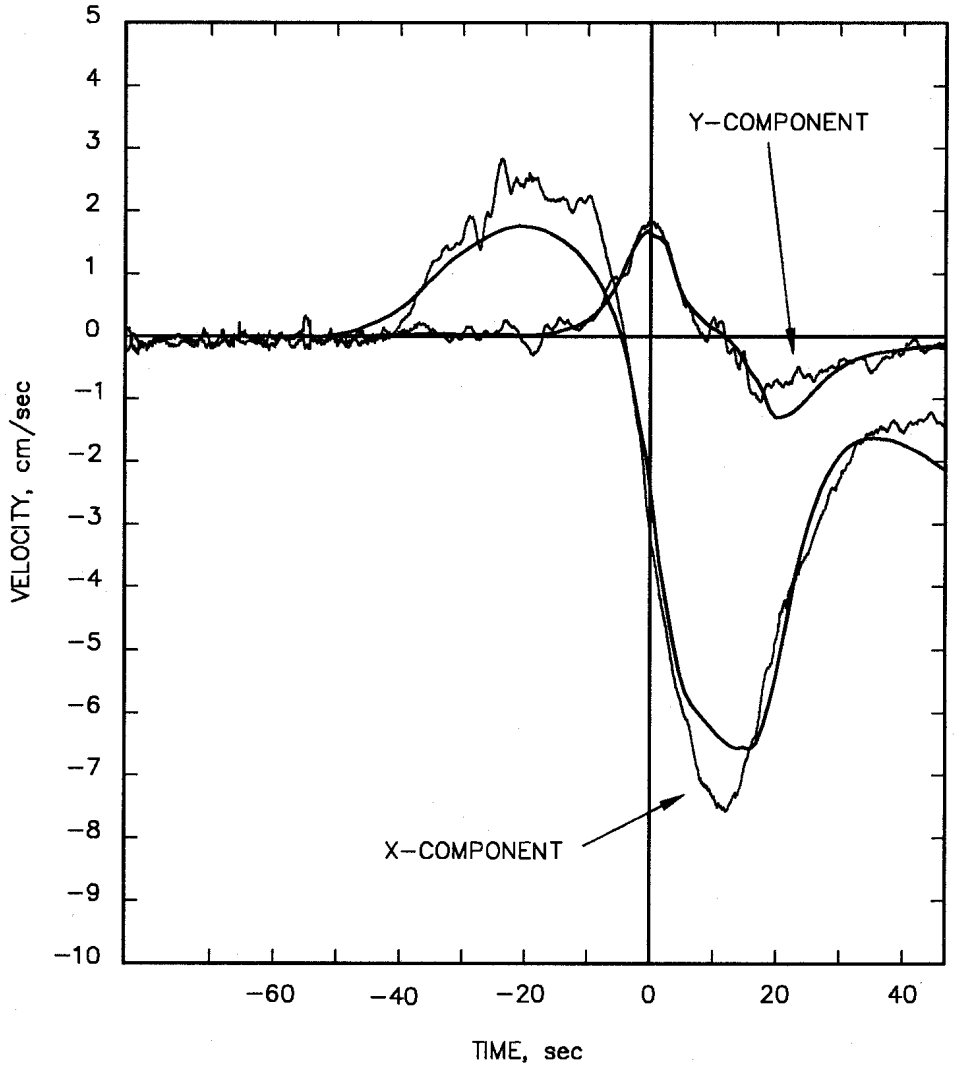


LABORATORY PROBE NUMBER	FIELD PROBE NUMBER
1V	071
2V	040
1W	—
3V	332
4V	642
5V	999
2W	—
6V	1001

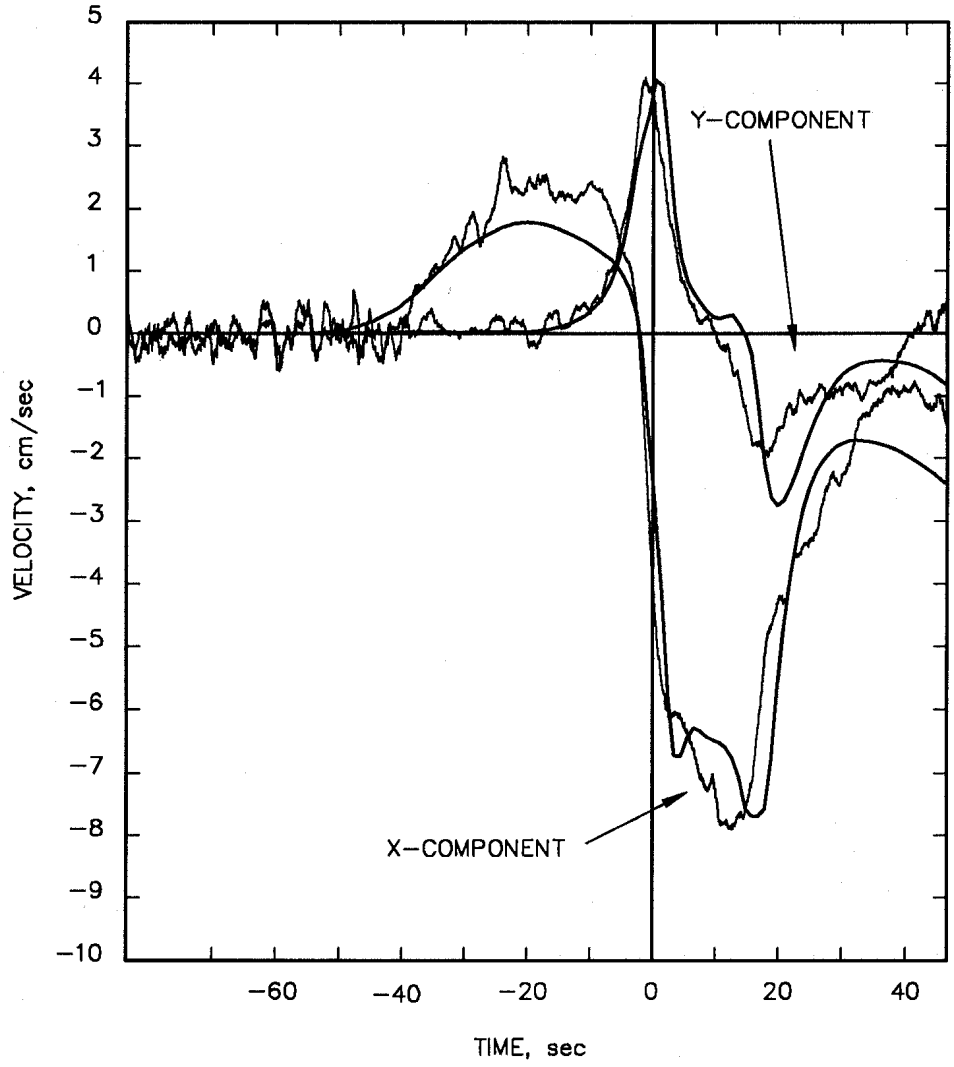
KAMPSVILLE SITE
RIVER CROSS SECTION
AND BARGE LOCATION



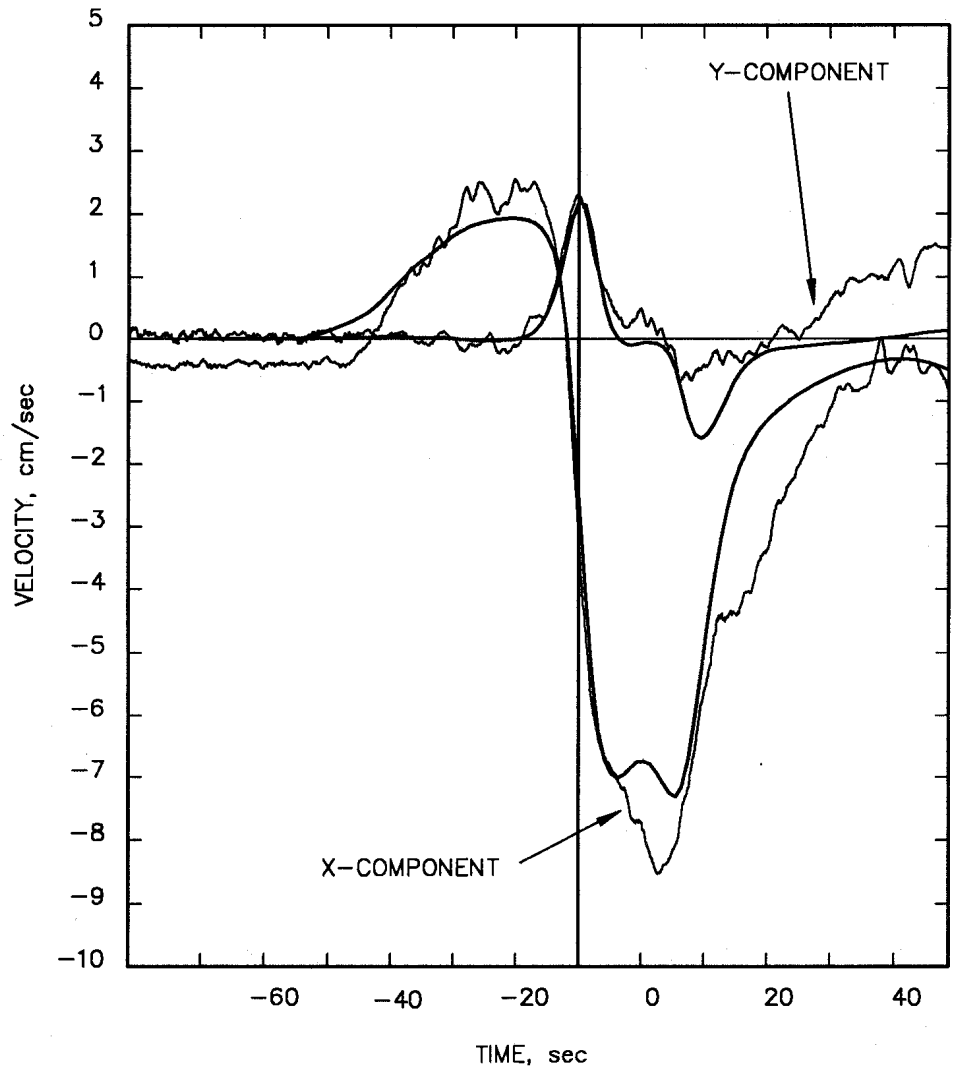
KAMPSVILLE SITE LABORATORY FLUME
NUMERICAL MODEL COMPUTATIONAL MESH



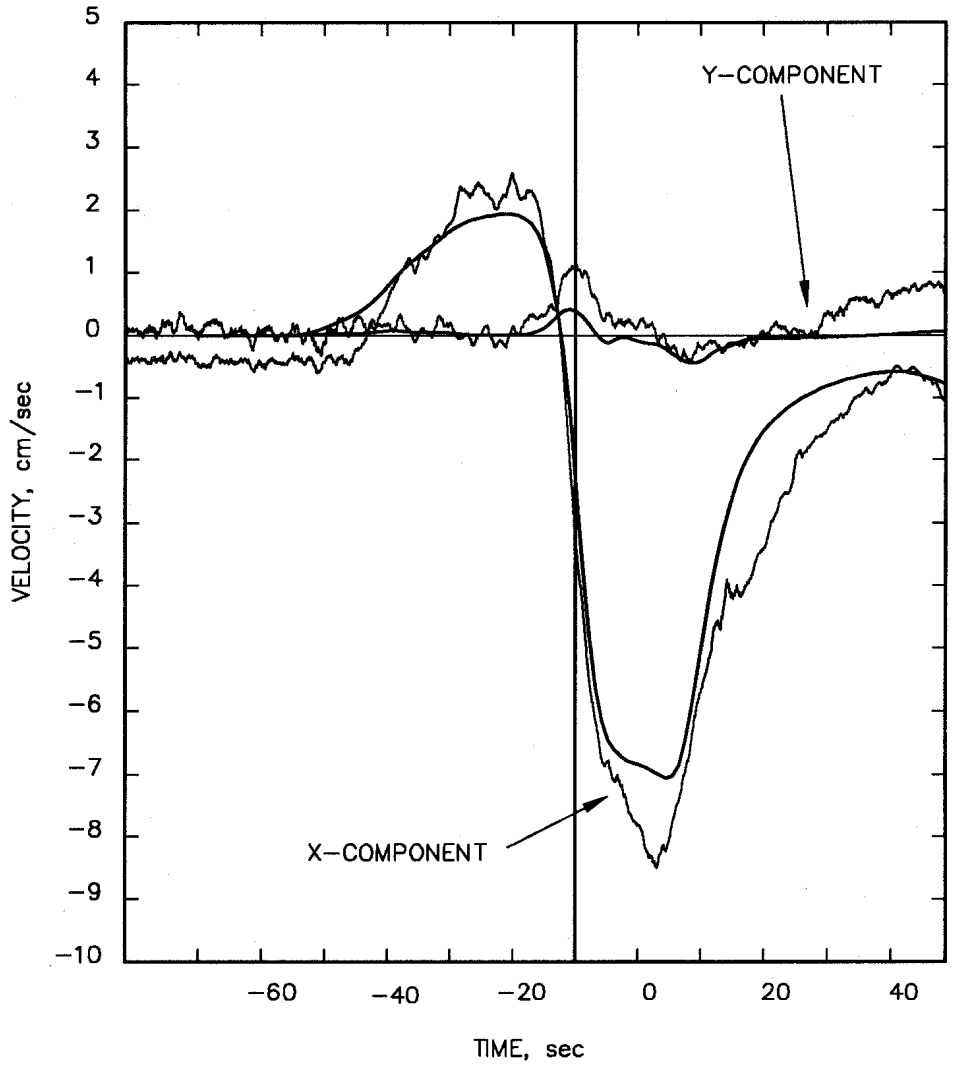
KAMPSVILLE SITE
COMPUTED AND OBSERVED VELOCITIES
PHYSICAL MODEL PROBE 1V



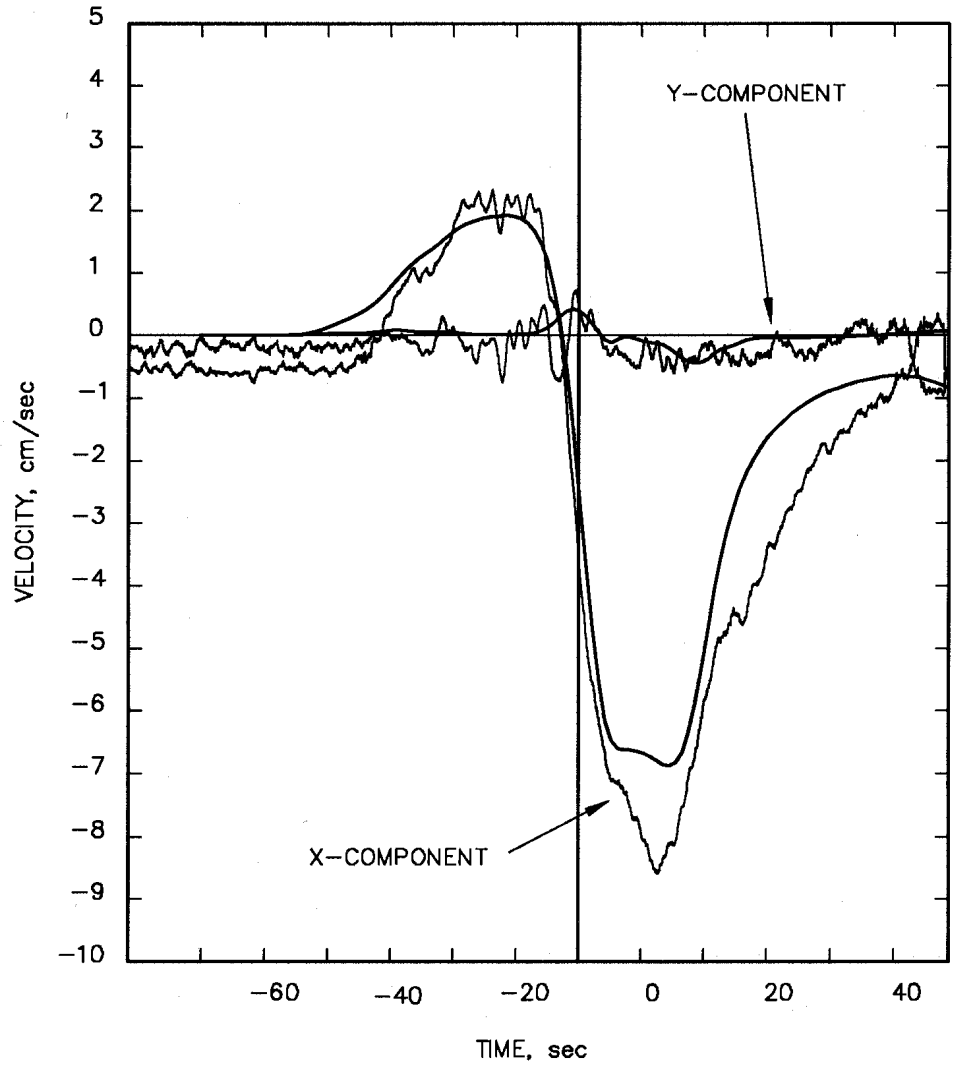
KAMPSVILLE SITE
COMPUTED AND OBSERVED VELOCITIES
PHYSICAL MODEL PROBE 2V



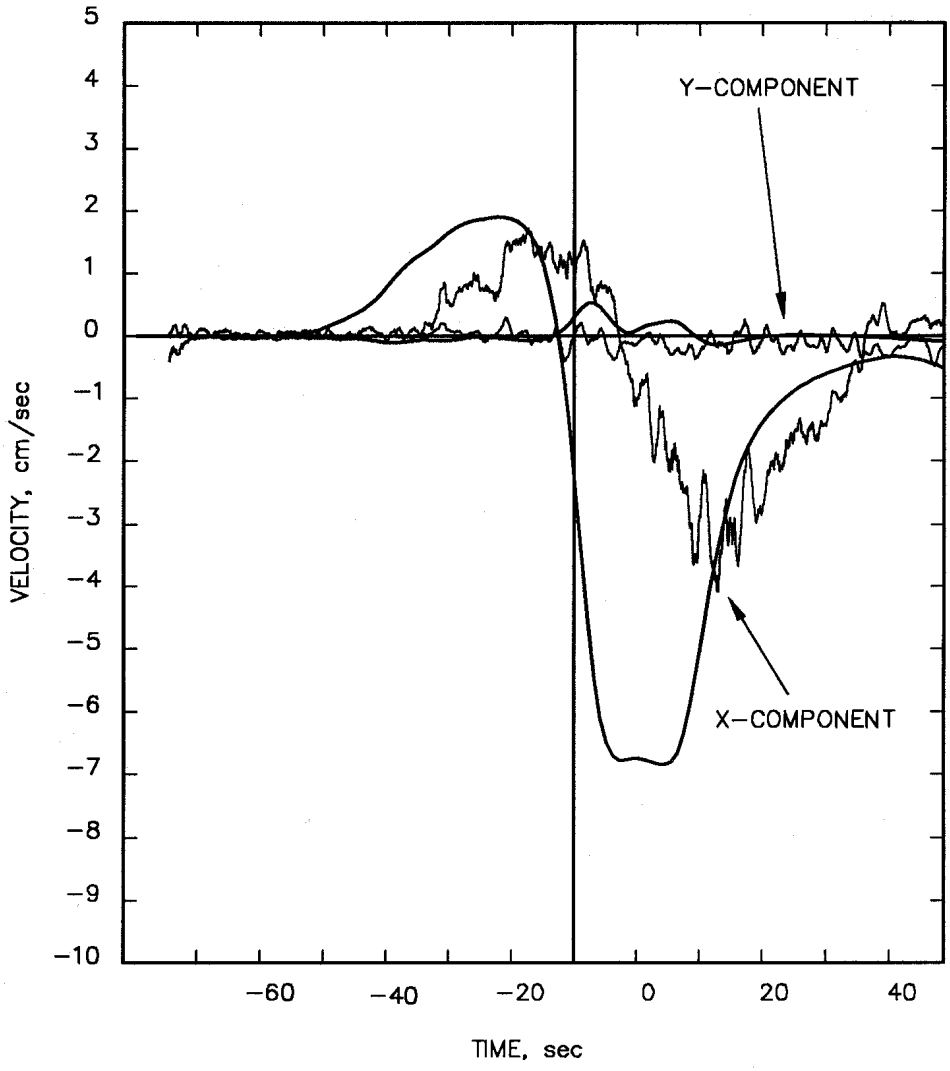
KAMPSVILLE SITE
COMPUTED AND OBSERVED VELOCITIES
PHYSICAL MODEL PROBE 3V



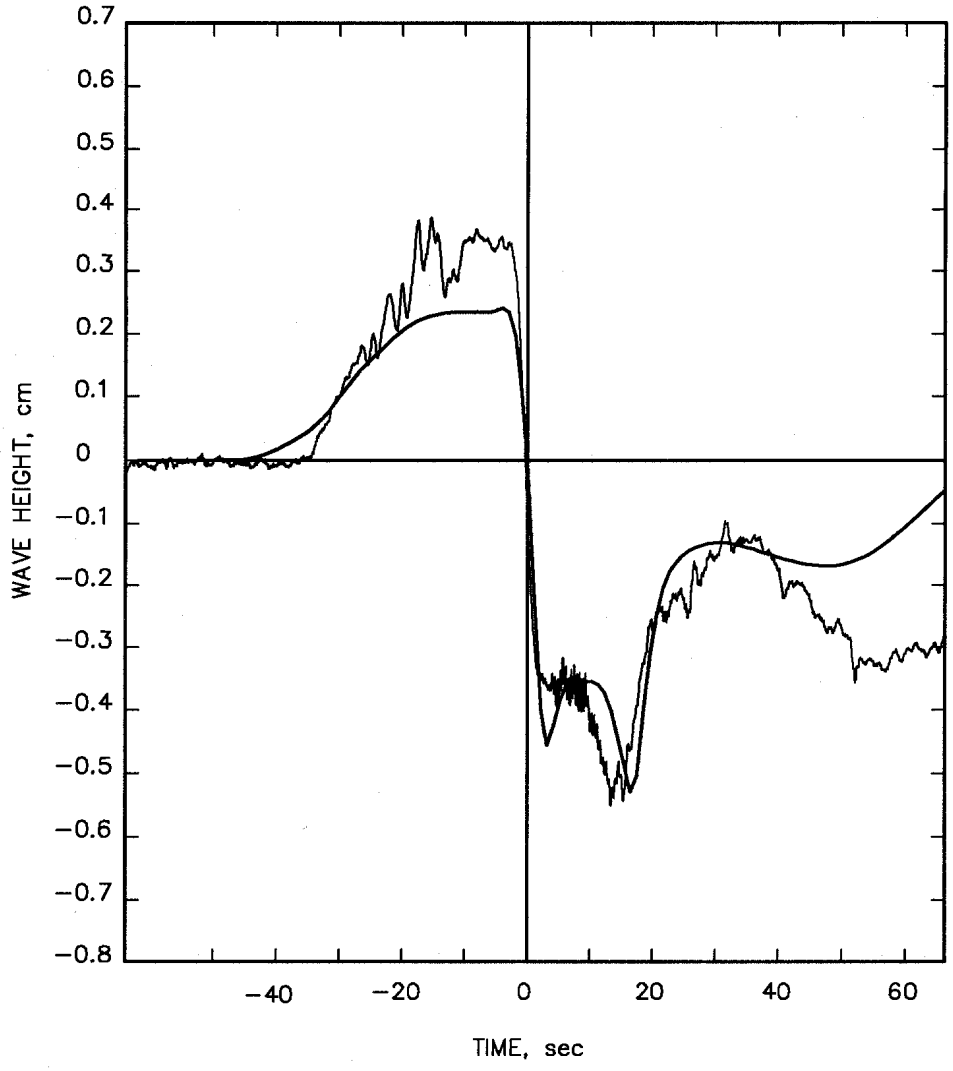
KAMPSVILLE SITE
COMPUTED AND OBSERVED VELOCITIES
PHYSICAL MODEL PROBE 4V



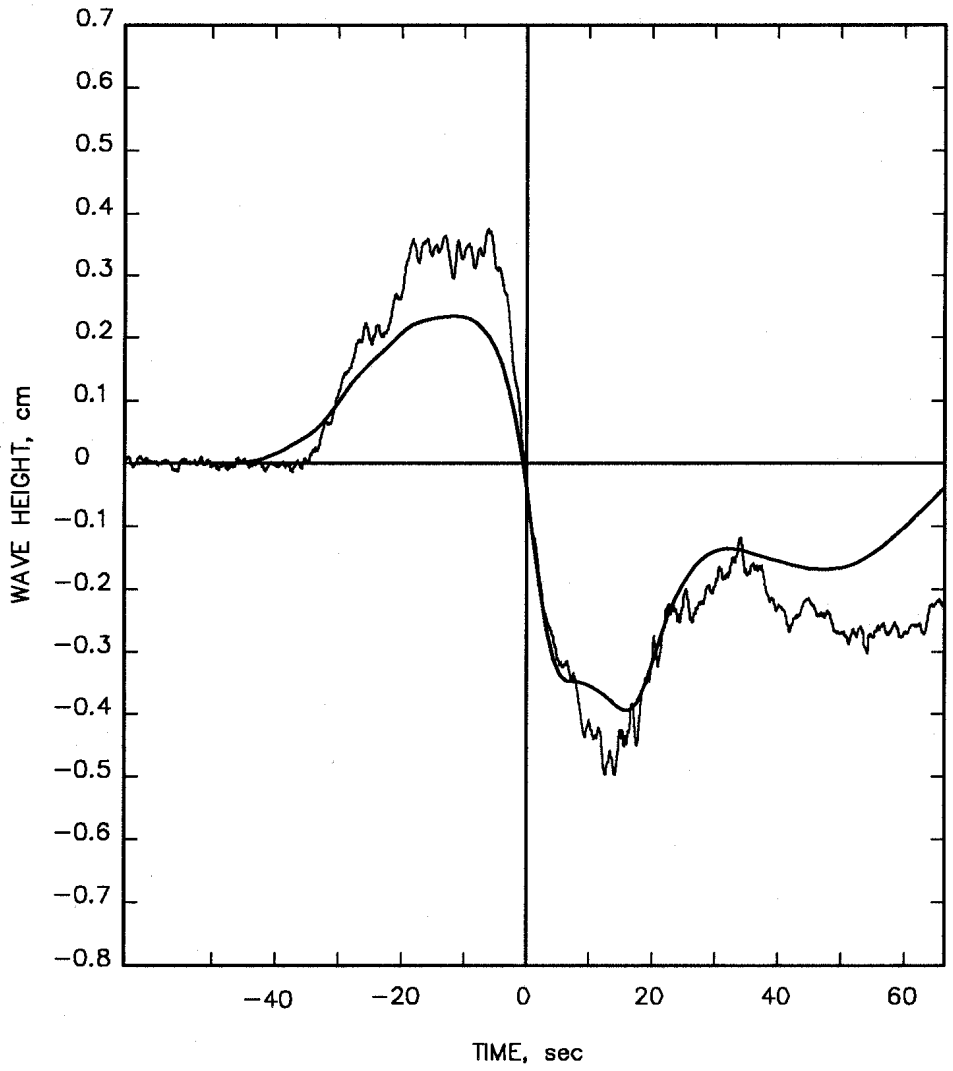
KAMPSVILLE SITE
COMPUTED AND OBSERVED VELOCITIES
PHYSICAL MODEL PROBE 5V



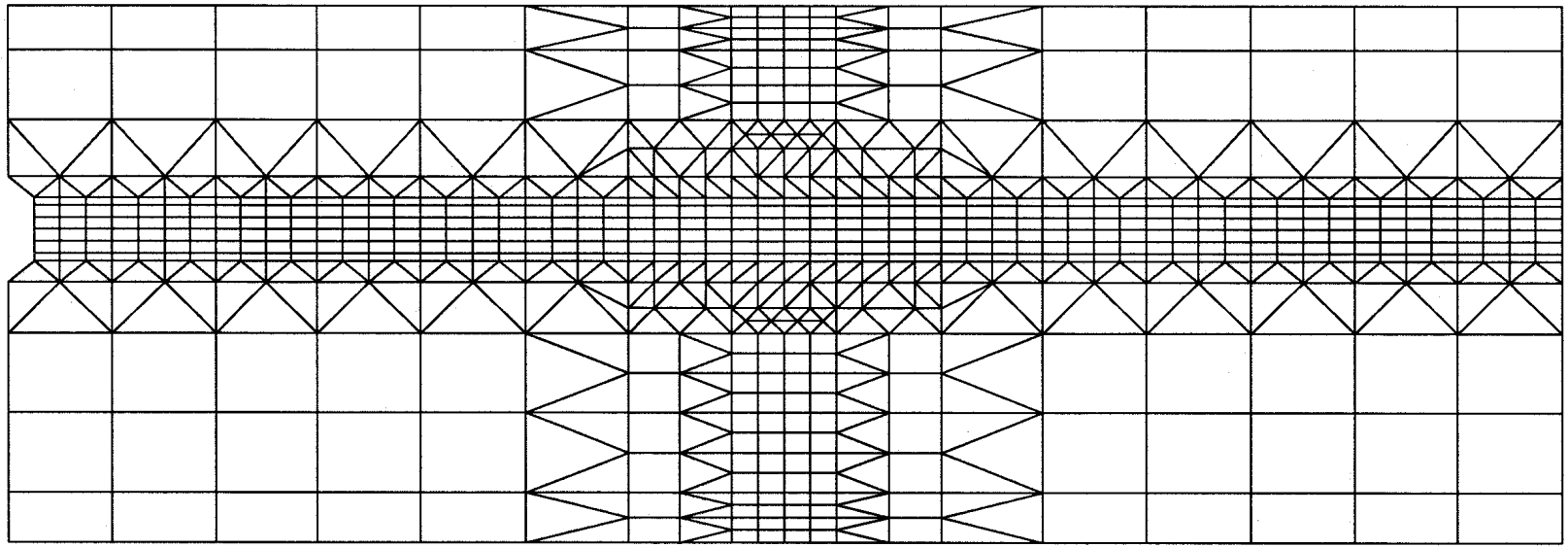
KAMPSVILLE SITE
COMPUTED AND OBSERVED VELOCITIES
PHYSICAL MODEL PROBE 6V



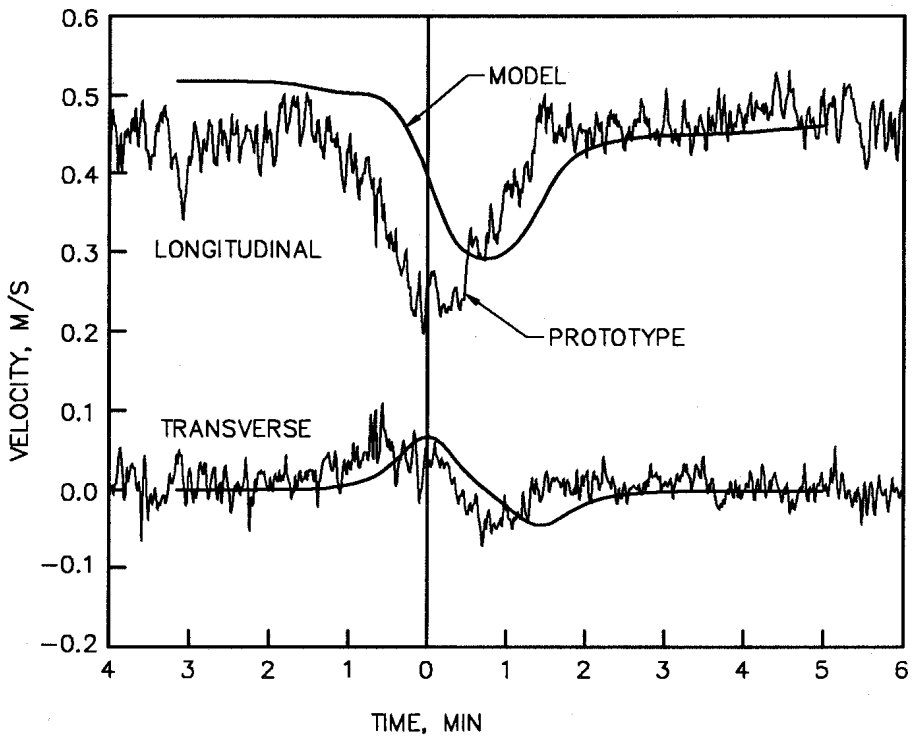
KAMPSVILLE SITE
COMPUTED AND OBSERVED WAVE HEIGHTS
RELATIVE TO STILL WATER LEVEL
PHYSICAL MODEL PROBE 1W



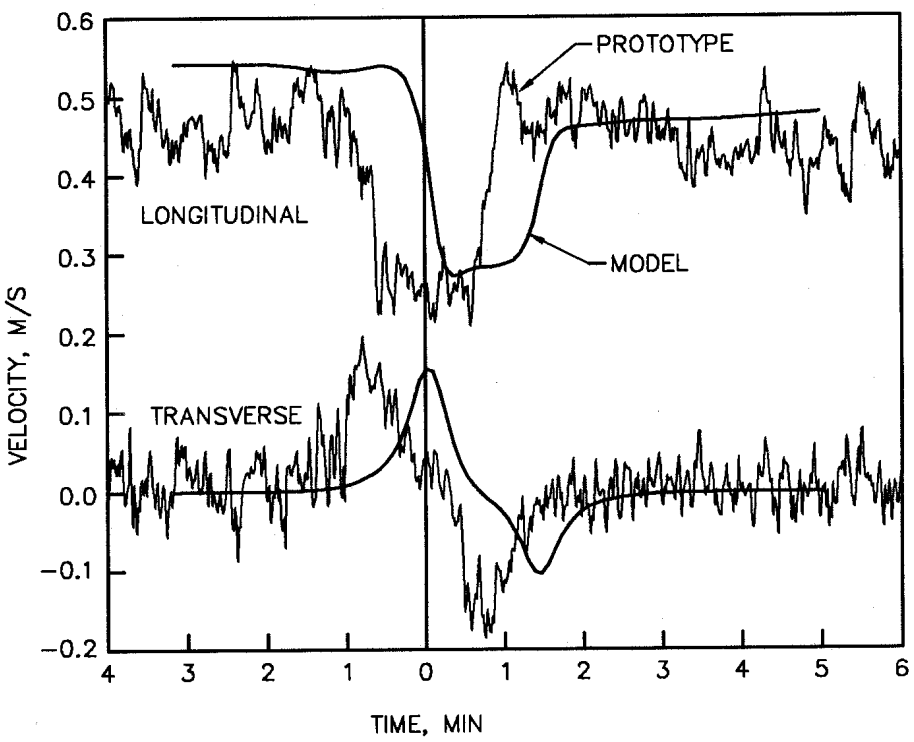
KAMPSVILLE SITE
COMPUTED AND OBSERVED WAVE HEIGHTS
RELATIVE TO STILL WATER LEVEL
PHYSICAL MODEL PROBE 2W



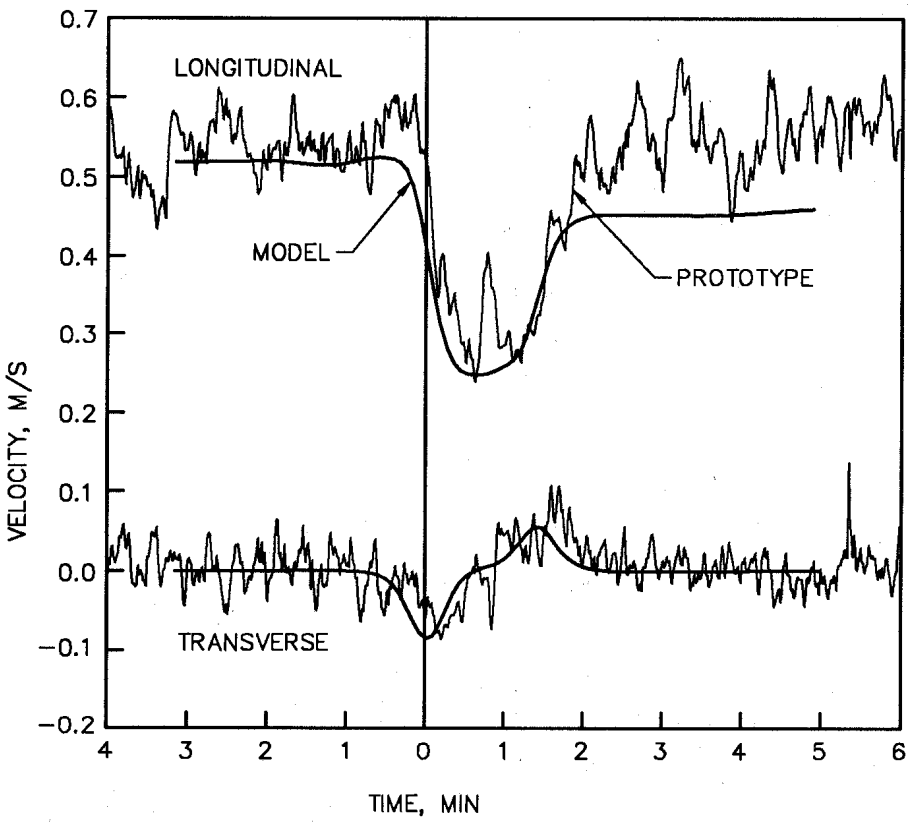
KAMPSVILLE SITE PROTOTYPE
NUMERICAL MODEL COMPUTATIONAL MESH



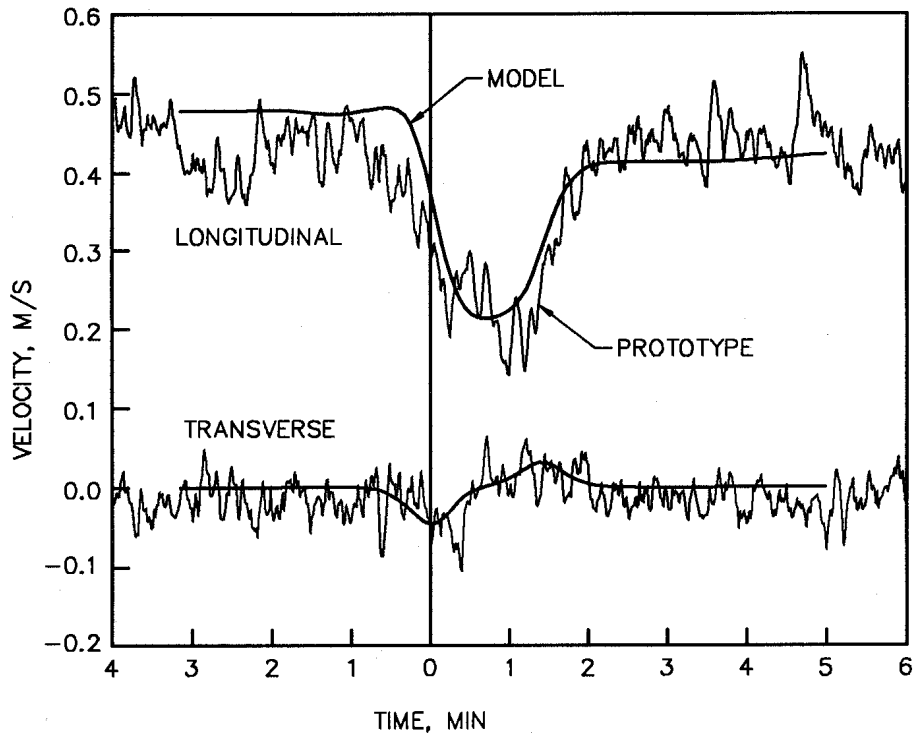
KAMPSVILLE SITE
COMPUTED AND OBSERVED VELOCITIES
PROTOTYPE GAGE 071



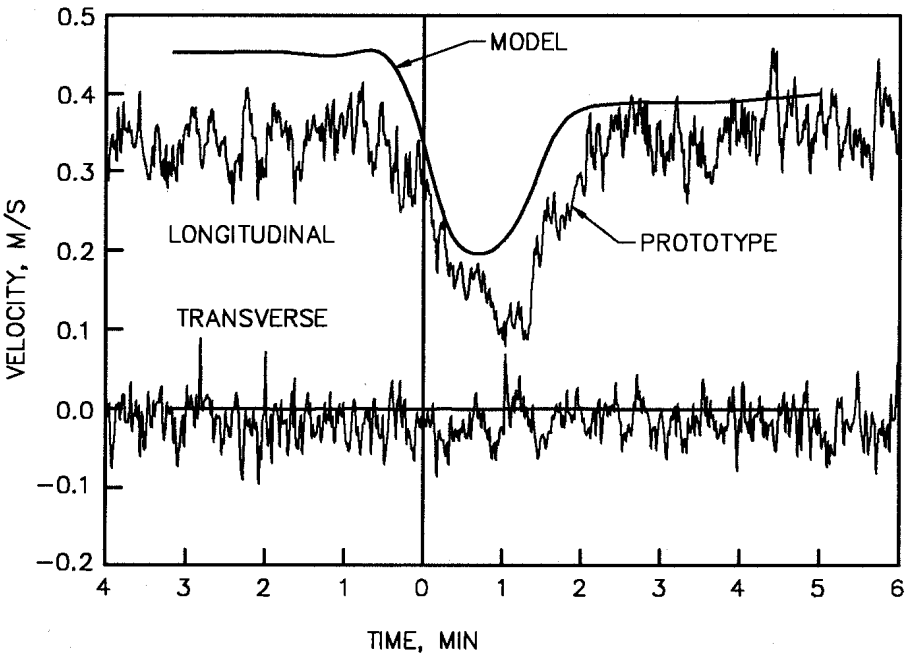
KAMPSVILLE SITE
COMPUTED AND OBSERVED VELOCITIES
PROTOTYPE GAGE 040



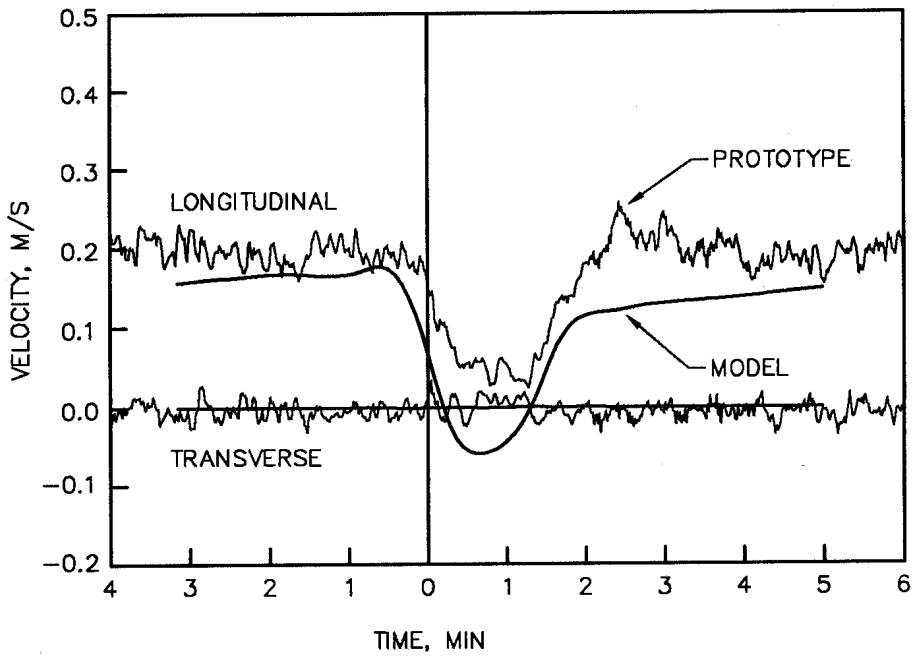
KAMPSVILLE SITE
COMPUTED AND OBSERVED VELOCITIES
PROTOTYPE GAGE 332



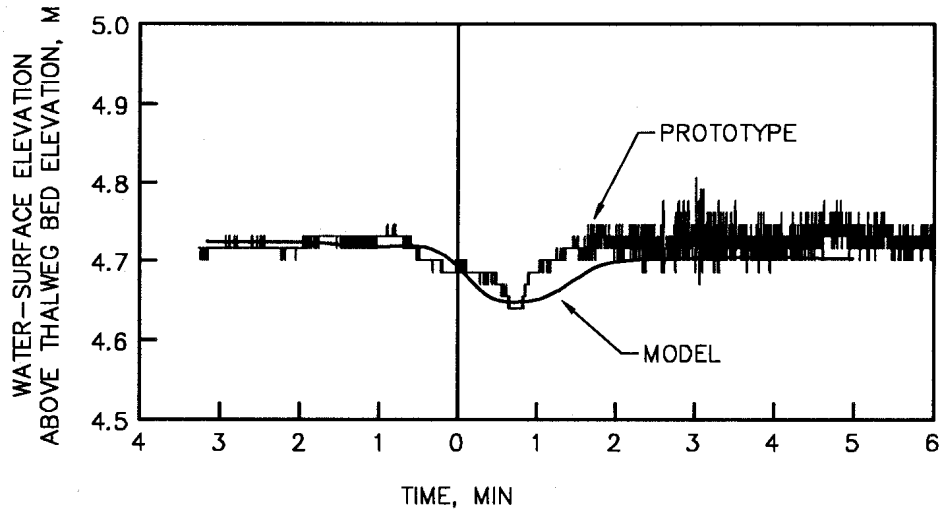
KAMPSVILLE SITE
COMPUTED AND OBSERVED VELOCITIES
PROTOTYPE GAGE 642



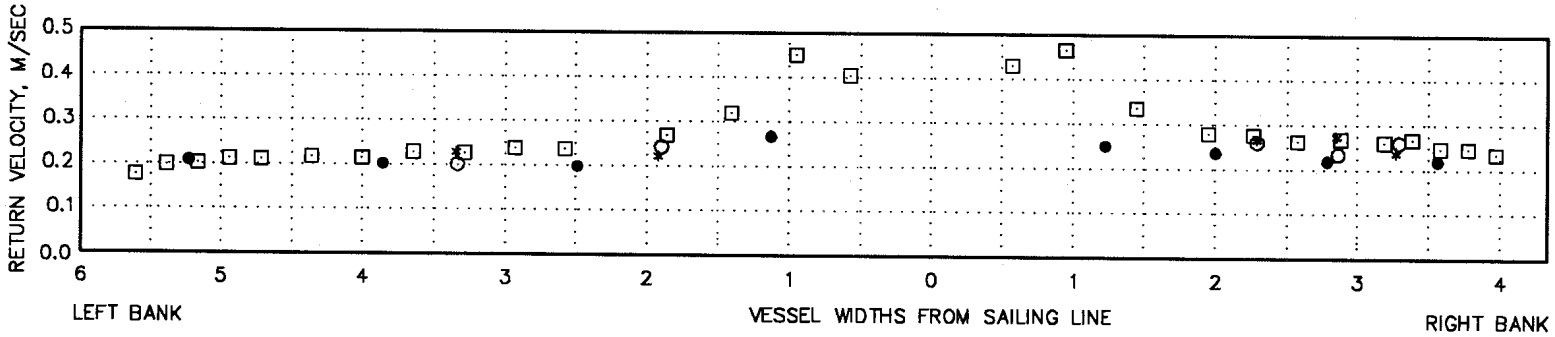
KAMPSVILLE SITE
COMPUTED AND OBSERVED VELOCITIES
PROTOTYPE GAGE 999



KAMPSVILLE SITE
COMPUTED AND OBSERVED VELOCITIES
PROTOTYPE GAGE 1001

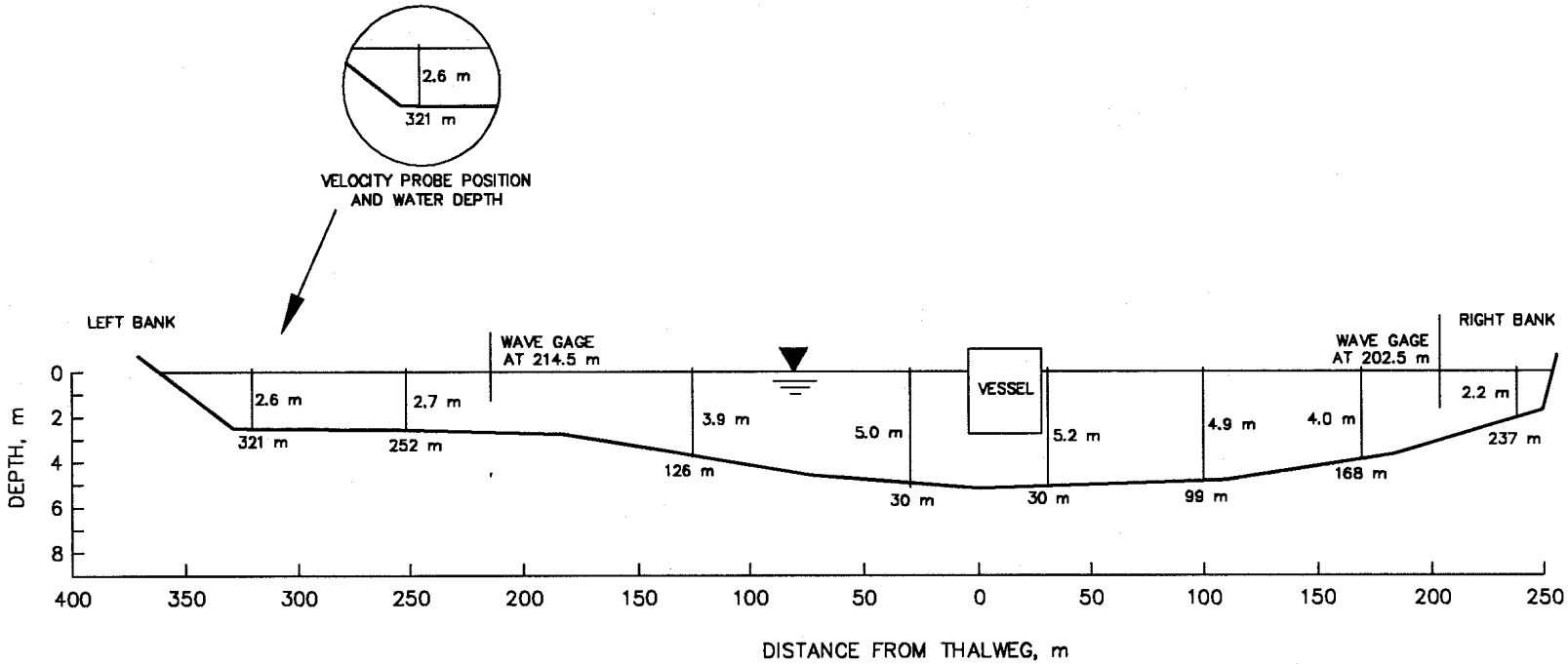


KAMPSVILLE SITE
COMPUTED AND OBSERVED
WATER-SURFACE ELEVATIONS

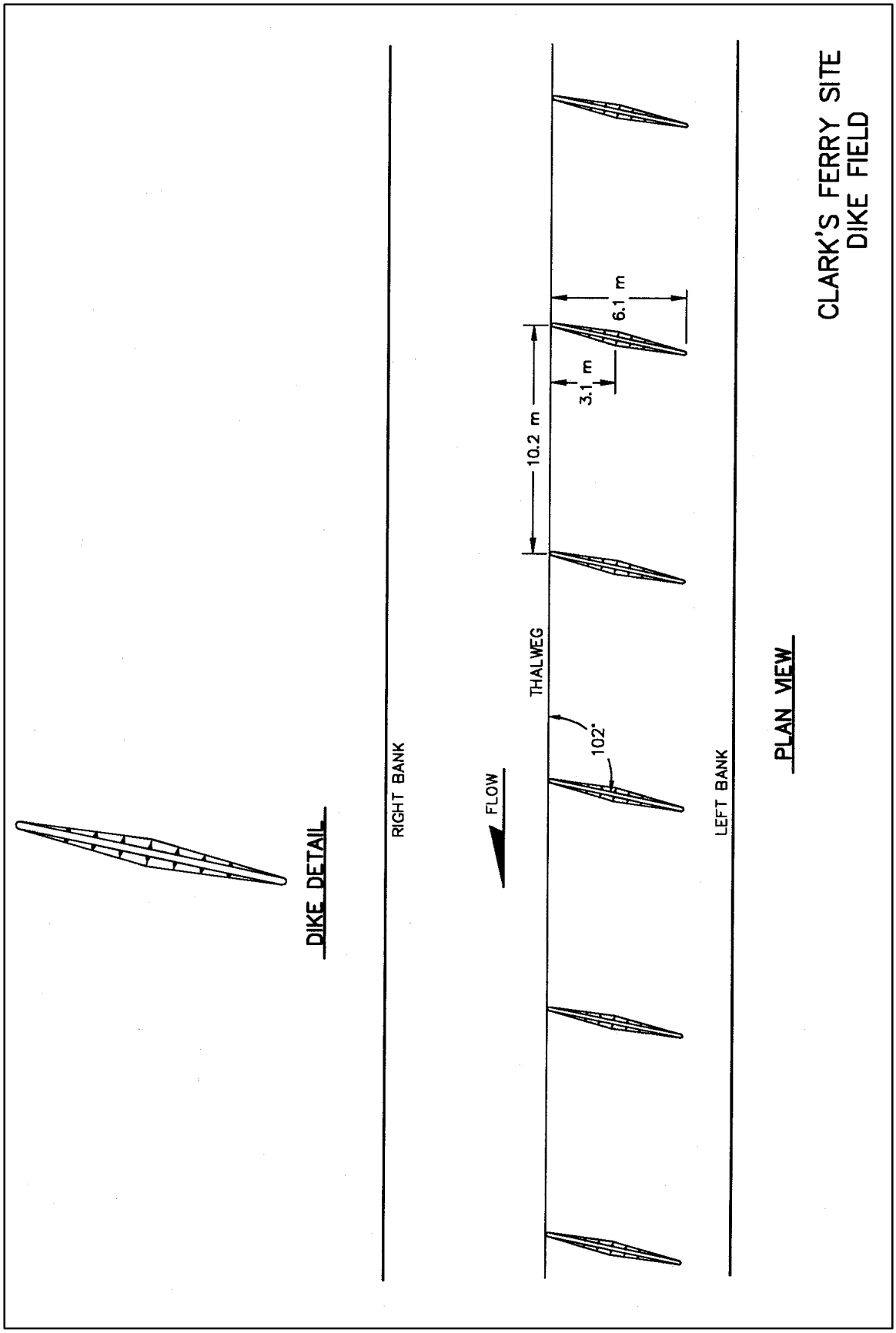


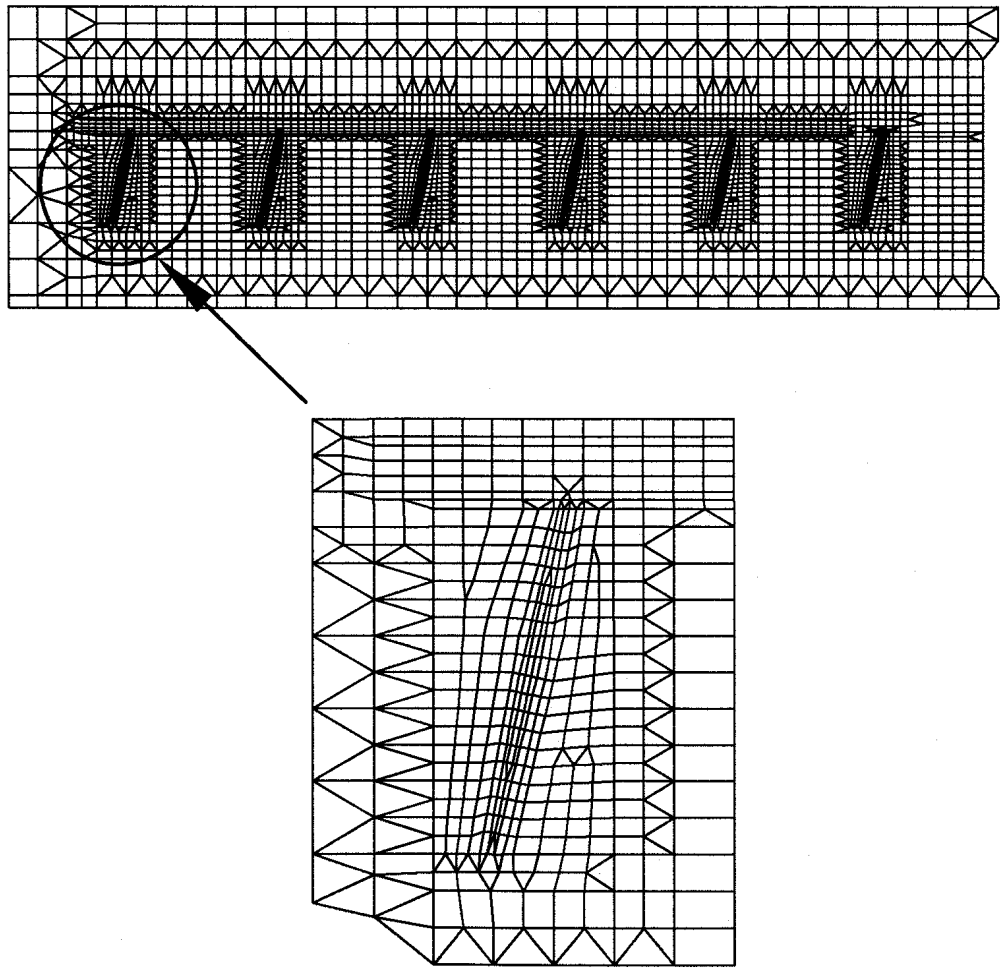
- ⊡ NUMERICAL MODEL
- ● PHYSICAL MODEL AT 0.6*DEPTH (MAYNORD AND MARTIN 1997)
- O PHYSICAL MODEL AT PROTOTYPE METER DEPTHS (MAYNORD AND MARTIN 1997)
- * PROTOTYPE (BHOWMIK, SOONG, AND XIA 1993)

RETURN CURRENT DISTRIBUTION
DOWNBOUND TOW AT KAMPSVILLE



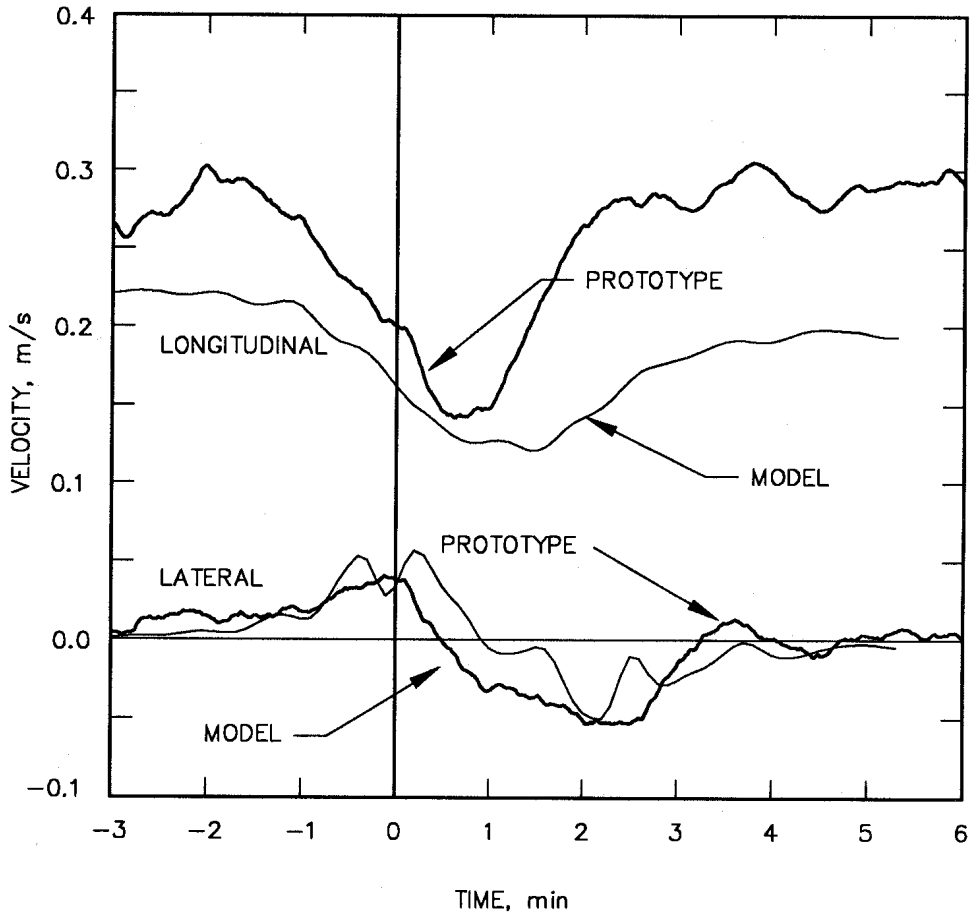
RIVER CROSS SECTION
DOWNBOUND TOW AT CLARK'S FERRY


DIKE DETAIL
RIGHT BANK
FLOW
THALWEG
102°
10.2 m
3.1 m
6.1 m
LEFT BANK
PLAN VIEW
CLARK'S FERRY SITE
DIKE FIELD



DETAILS NEAR DIKE

CLARK'S FERRY SITE
NUMERICAL MODEL COMPUTATIONAL MESH



CLARK'S FERRY SITE
COMPUTED AND OBSERVED VELOCITIES
PROTOTYPE GAGE 832